

#### ABSTRACT OF THE DISCLOSURE

A method for producing a capillary bead array comprises the steps of: dispensing beads into a liquid pool 202, outside a capillary, having a depth of almost the same length as the particle diameter of a bead; leveling the excessive beads by moving a leveling member which is in contact with and relatively capable of being moved to the liquid pool to remove excessive beads that the liquid pool cannot contain; aligning the beads in the liquid pool one- or two-dimensionally; bonding adjacent individual beads to each other; producing a structure 209 having the plurality of beads bonded and aligned one- or two-dimensionally; removing the structure from the liquid pool; and disposing the structure in the capillary formed of soft resin, so that the beads comprising the plurality of beads retaining the one- or two-dimensional alignment can be introduced simultaneously into the capillary. This method reduces the time and cost necessary for bead array production and retains the bead alignment in the capillary, resulting in improved accuracy and reliability in experiments using the capillary array.